5040

## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Date Processed by STIC:

19-28-04

## ENTERED



PCT

RAW SEQUENCE LISTING DATE: 12/28/2004
PATENT APPLICATION: US/10/517,956 TIME: 11:41:47

Input Set : A:\PTO.YF.txt

Output Set: N:\CRF4\12282004\J517956.raw

```
2 <110> APPLICANT: Takeda Chemical Industries, Ltd.
      4 <120> TITLE OF INVENTION: Novel Screening Method
      6 <130> FILE REFERENCE: 3067WOOP
C--> 8 <140> CURRENT APPLICATION NUMBER: US/10/517,956
C--> 8 <141> CURRENT FILING DATE: 2004-12-13
      8 <150> PRIOR APPLICATION NUMBER: JP 2002-173798
      9 <151> PRIOR FILING DATE: 2002-06-14
     11 <150> PRIOR APPLICATION NUMBER: JP 2002-205470
     12 <151> PRIOR FILING DATE: 2002-07-15
     14 <160> NUMBER OF SEQ ID NOS: 24
     16 <210> SEQ ID NO: 1
     17 <211> LENGTH: 351
     18 <212> TYPE: PRT
     19 <213> ORGANISM: Human
     21 <400> SEQUENCE: 1
     22 Met Glu Thr Asn Phe Ser Thr Pro Leu Asn Glu Tyr Glu Glu Val Ser
                         5
     24 Tyr Glu Ser Ala Gly Tyr Thr Val Leu Arg Ile Leu Pro Leu Val Val
     26 Leu Gly Val Thr Phe Val Leu Gly Val Leu Gly Asn Gly Leu Val Ile
     28 Trp Val Ala Gly Phe Arg Met Thr Arg Thr Val Thr Thr Ile Cys Tyr
     30 Leu Asn Leu Ala Leu Ala Asp Phe Ser Phe Thr Ala Thr Leu Pro Phe
     32 Leu Ile Val Ser Met Ala Met Gly Glu Lys Trp Pro Phe Gly Trp Phe
                         85
                                             90
     34 Leu Cys Lys Leu Ile His Ile Val Val Asp Ile Asn Leu Phe Gly Ser
                                        105
     36 Val Phe Leu Ile Gly Phe Ile Ala Leu Asp Arg Cys Ile Cys Val Leu
                                    120
     38 His Pro Val Trp Ala Gln Asn His Arg Thr Val Ser Leu Ala Met Lys
     40 Val Ile Val Gly Pro Trp Ile Leu Ala Leu Val Leu Thr Leu Pro Val
                            150
                                                155
     42 Phe Leu Phe Leu Thr Thr Val Thr Ile Pro Asn Gly Asp Thr Tyr Cys
                      . 165
                                            170
    44 Thr Phe Asn Phe Ala Ser Trp Gly Gly Thr Pro Glu Glu Arg Leu Lys
                    180
                                        185
     46 Val Ala Ile Thr Met Leu Thr Ala Arg Gly Ile Ile Arg Phe Val Ile
               195
                                    200
    48 Gly Phe Ser Leu Pro Met Ser Ile Val Ala Ile Cys Tyr Gly Leu Ile
```

215

220

210

49

Input Set : A:\PTO.YF.txt

```
50 Ala Ala Lys Ile His Lys Lys Gly Met Ile Lys Ser Ser Arg Pro Leu
51 225
                       230
                                            235
52 Arg Val Leu Thr Ala Val Val Ala Ser Phe Phe Ile Cys Trp Phe Pro
                                       250
54 Phe Gln Leu Val Ala Leu Leu Gly Thr Val Trp Leu Lys Glu Met Leu
               260
                                   265
56 Phe Tyr Gly Lys Tyr Lys Ile Ile Asp Ile Leu Val Asn Pro Thr Ser
57
           275
                               280
58 Ser Leu Ala'Phe Phe Asn Ser Cys Leu Asn Pro Met Leu Tyr Val Phe
                           295
60 Val Gly Gln Asp Phe Arg Glu Arg Leu Ile His Ser Leu Pro Thr Ser
                       310
                                            315
62 Leu Glu Arg Ala Leu Ser Glu Asp Ser Ala Pro Thr Asn Asp Thr Ala
                                       330
64 Ala Asn Ser Ala Ser Pro Pro Ala Glu Thr Glu Leu Gln Ala Met
65
               340
                                   345
                                                        350
67 <210> SEQ ID NO: 2
68 <211> LENGTH: 1053
69 <212> TYPE: DNA
70 <213> ORGANISM: Human
72 <400> SEQUENCE: 2
73 atggaaacca acttetecae teetetgaat gaatatgaag aagtgteeta tgagtetget
                                                                        60
74 ggctacactg ttctgcggat ceteccattg gtggtgcttg gggtcacctt tqtcctcqqq
75 gtcctgggca atgggcttgt gatctgggtg gctggattcc ggatgacacg cacagtcacc
76 accatctgtt acctgaacct ggccctggct gacttttctt tcacqqccac attaccattc
77 ctcattgtct ccatggccat gggagaaaaa tggccttttg gctggttcct qtgtaaqtta
78 attracatog tggtggacat caacctettt ggaagtgtet tettgattgg tttcattgca
79 ctggaccgct gcatttgtgt cctgcatcca gtctgggccc agaaccaccg cactgtgagt
80 ctggccatga aggtgategt eggaeettgg attettgete tagteettae ettgecagtt
81 ttcctctttt tgactacagt aactattcca aatggggaca catactgtac tttcaacttt
                                                                       540
82 gcatcctggg gtggcacccc tgaggagagg ctgaaggtgg ccattaccat gctgacagcc
                                                                       600
83 agagggatta teeggtttgt eattggettt agettgeega tgteeattgt tgeeatetge
84 tatgggetea ttgeageeaa gateeacaaa aagggeatga ttaaateeag eegteeetta
85 cgggtcctca ctgctgtggt ggcttctttc ttcatctgtt ggtttccctt tcaactggtt
                                                                       780
86 gcccttctgg gcaccgtctg gctcaaagag atgttgttct atggcaagta caaaatcatt
                                                                       840
87 gacatectgg ttaacccaac gagetecetg geettettea acagetgeet caaccccatg
88 ctttacgtct ttgtgggcca agacttccga gagagactga tccactccct gcccaccagt 960
89 ctggagaggg ccctgtctga ggactcagcc ccaactaatg acacggctgc caattctgct 1020
90 tcacctcctg cagagactga gttacaggca atg
                                                                      1053
92 <210> SEQ ID NO: 3
93 <211> LENGTH: 24
94 <212> TYPE: PRT
95 <213> ORGANISM: Human
97 <400> SEQUENCE: 3
98 Met Ala Pro Arg Gly Phe Ser Cys Leu Leu Leu Thr Ser Glu Ile
99
                     5
                                        10
100 Asp Leu Pro Val Lys Arg Arg Ala
101
                20
103 <210> SEO ID NO: 4
```

Input Set : A:\PTO.YF.txt

```
104 <211> LENGTH: 24
 105 <212> TYPE: PRT
 106 <213> ORGANISM: Human
 108 <400> SEQUENCE: 4
 109 Met Ala Pro Arg Gly Phe Ser Cys Leu Leu Leu Thr Gly Glu Ile
 110
     1
 111 Asp Leu Pro Val Lys Arg Arg Ala
 112
                20
 114 <210> SEQ ID NO: 5
 115 <211> LENGTH: 24
 116 <212> TYPE: PRT
 117 <213> ORGANISM: Human
 119 <400> SEQUENCE: 5
 120 Met Ala Arg Arg Gly Phe Ser Cys Leu Leu Ser Thr Thr Ala Thr
                                          10
 122 Asp Leu Pro Val Lys Arg Arg Thr
                 20
 125 <210> SEQ ID NO: 6
 126 <211> LENGTH: 21
 127 <212> TYPE: PRT
 128 <213> ORGANISM: Human
 130 <400> SEQUENCE: 6
 131 Met Ala Pro Arg Gly Phe Ser Cys Leu Leu Leu Thr Ser Glu Ile
 133 Asp Leu Pro Val Lys
 134
                 20
                      21
 136 <210> SEQ ID NO: 7
 137 <211> LENGTH: 38
 138 <212> TYPE: PRT
. 139 <213> ORGANISM: Rat
 141 <400> SEQUENCE: 7
 142 Met Ala Lys Arg Gly Phe Asn Cys Leu Leu Ser Ile Ser Glu Ile
                                          10
 144 Asp Leu Pro Val Lys Arg Leu Glu Ser Pro Asn Lys Thr Arg Arg Pro
                 20
                                      25
 146 Tyr Gly Ala Ser Ile Tyr
              35
 147
 149 <210> SEQ ID NO: 8
 150 <211> LENGTH: 24
 151 <212> TYPE: PRT
 152 <213> ORGANISM: Rat
 154 <400> SEQUENCE: 8
 155 Met Ala Lys Arg Gly Phe Asn Cys Leu Leu Ser Ile Ser Glu Ile
                      5
                                          10
 157 Asp Leu Pro Val Lys Arg Leu Glu
                 20
 160 <210> SEQ ID NO: 9
 161 <211> LENGTH: 21
 162 <212> TYPE: PRT
```

Input Set : A:\PTO.YF.txt

				ISM:												
			~	ICE:		-1	_	_	_	_	_	_		_		
	Met	Ala	ьys	Arg		Pne	Asn	Cys	Leu		Leu	Ser	He	Ser		Ile
167	_	_		**- 3	5					10					15	
	Asp	Leu	Pro	Val	_											
169				20	21											
				O NO												
				1: 35	οŢ											
			YPE:													
				ISM:												
			EQUE		10	_	_,	_	_	_					<b>_</b>	
	Met	GIu	Ala	Asn	_	Ser	lle	Pro	Leu		Val	Ser	Glu	Val		Val
178	_	_		~~1	5	_	_		_	_10		_	_,		15	
	Tyr	Asp	ser		TTE	ser	Arg	vaı		Trp	He	Leu	Thr		Val	Val
180	_	_	~ 7	20	_,		_	~7	25	_	~7	_		_ 30		
	Leu	ser		Thr	Phe	vai	Leu	_	Val	Leu	GIY	Asn	_	Leu	Val	He
182	_		35	~-7	_,	_		40	'	1			45 		_	
	Trp		Ala	GLY	Phe	Arg		Val	His	Thr	Val		Thr	Thr	Cys	Phe
184	_	50	_		_		55	_,	_	_,	_,	60		_	_	
		Asn	Leu	Ala	Leu		Asp	Phe	Ser	Phe		Val	Thr	Leu	Pro	Phe
186	65	** - 1	-1.		~ 7	70		_	~7	-	75	_	-1	~7	_	80
	Pne	vaı	тте	ser		Ala	мет	ьys	GIU	-	Trp	Pro	Phe	GIY	Trp	Pne
188	T	O	T	T	85	TT	<b>-</b> 1 -	**- 7	**- 7	.90	<b>-</b> 1 -		<b>.</b>	D1	95	<b>.</b>
	ьeu	Cys	гаг		vaı	HIS	ше	vaı		Asp	ше	Asn	Leu		Gly	ser
190	1707	Dha	T	100	77.	T	T1.	77-	105	7	7	<b>~</b>	<b>T</b> 1 -	110	77-7	T
	vai	Pne		тте	Ата	ьeu	шe		ьeu	Asp	Arg	Cys		Cys	vaı	Leu
192	111 a	Desa	115	(T) = 0 = 0	71-	a1	7	120	7	mla aa	777	0	125	70 7	3	T
194	nis		vai	тĻР	Ala	GIII		птр	Arg	1111	vai		ьeu	Ala	Arg	Lys
	17-1	130	v-1	Clar	Dro	Trn	135	T 011	ת דת	T 011	Tlo	140	Th∝	T 011	Dro	Tla
	145	vai	vaı	Gry	PIO	150	TIE	ьęи	міа	ьeu	155	Leu	1111	ьeu	PIO	Ile
		Tla	Dha	Mot	Thr		1721	λνα	Tla	Dro		Glv	Acn	172]	Tyr	160
198	rnc	116	riic	riec	165	1111	vai	Arg	116	170	Gry	СТУ	ASII	vaı	175	Суз
	Thr	Phe	Δsn	Phe		Ser	Trn	Glv	Δen		Δla	Glu	Glu	T.e.11	Leu	Δen
200			11011	180	niu	DCI	115	Oly	185	1111	nia	GIU	GIU	190	пси	ASII
	Tle	Δla	Asn		Phe	Val	Thr	٧al		Glv	Ser	Tle	Δτα		Tle	Ile
202			195			•		200	****9	011	DCI		205		110	110
	Glv	Phe			Pro	Met	Ser		Val	Δla	Tle	Cvs		Glv	Len	Ile
204	017	210					215	110	Vul	1114	110	220	- 7 -	O <sub>1</sub>	Lea	110
	Ala		Lvs	Tle	His	Ara		Δla	Leu	Val	Asn		Ser	Ara	Pro	Leu
	225		-1-			230	5			•••	235	502	001	3		240
		Val	Leu	Thr	Ala		Val	Ala	Ser	Phe		Tle	Cvs	Trp	Phe	Pro
208	3				245					250			J J		255	
	Phe	Gln	Leu	Val		Leu	Leu	Glv	Thr		Trp	Phe	Lvs	Glu		Leu
210				260		_54		1	265				_1_	270		
	Phe	Ser	Glv		Tvr	Lvs	Ile	Lev		Met	Tro	Val	His		Thr	Ser
212			275	3	-1-	_1 _		280					285			
	Ser	Leu		Tvr	Phe	Asn	Ser		Leu	Asn	Pro	Met		Tvr	Ala	Phe
214		290		- 2 -			295	-1-				300		-1-		
							-									

Input Set : A:\PTO.YF.txt

```
215 Met Gly Gln Asp Phe His Glu Arg Leu Ile His Ser Leu Pro Ser Ser
216 305
                                           315
217 Leu Glu Arg Ala Leu Ser Glu Asp Ser Gly Gln Thr Ser Asp Thr Gly
                   325
                                       330
219 Ile Ser Ser Ala Leu Pro Pro Val Asn Ile Asp Ile Lys Ala Ile
220
               340
                                   345
222 <210> SEQ ID NO: 11
223 <211> LENGTH: 1053
224 <212> TYPE: DNA
225 <213> ORGANISM: Rat
227 <400> SEQUENCE: 11
228 atggaageca actattecat ceetetgaat gtateagaag tggttgteta tgattetace
229 atctccagag ttttgtggat cctcacaatg gtggttctct ccatcacctt tgtcctgggt
                                                                      120
230 gtgctgggta atggactagt gatctgggta gctggattcc ggatggtaca cactgtcacc
                                                                      180
231 actacctgtt ttctgaatct agctttggct gacttctctt tcacagtgac tctaccattc
                                                                      240
232 tttqtcatct caattgctat gaaagaaaaa tggccttttg gatggttcct gtgtaaatta
                                                                      300
233 gttcacattg tagtagacat aaacctcttt ggaagtgtct tcctgattgc tttaattgcc
234 ttqqaccqct qcatttgtgt cctgcatcca gtctgggctc agaaccaccg cactgtgagc
                                                                      420
235 ctqqctaqqa aqqtqgttgt tgggccctgg attttagctc tgattctcac tttgcccatt
                                                                      480
237 gcatcctggg gtaacactgc tgaagaacta ttgaacatag ctaacacttt tgtaacagtt
238 agagggagca teaggtteat tattggette ataatgeeta tgtecattgt tgecatetge
239 tatggactca tegetgteaa gateeacaga agageaettg ttaatteeag eegteeatta
                                                                      720
240 agagteetta cagcagttgt ggetteette tttatetgtt ggttteeett teaactggtg
241 gcccttttag gtacaatctg gtttaaagag tcattgttta gtggtcgtta caaaattctt
242 gacatgtggg ttcacccaac cagctcattg gcctacttca atagttgcct caatccaatg
243 ctctatgctt tcatgggcca ggactttcat gaaagactga ttcattccct gccttccagt
244 ctggagagag ccctgagtga ggactctggc caaaccagtg atacaggcat cagttctgct 1020
245 ttacctcctg taaacattga tataaaagca ata
247 <210> SEQ ID NO: 12
248 <211> LENGTH: 351
249 <212> TYPE: PRT
250 <213> ORGANISM: Mouse
252 <400> SEQUENCE: 12
253 Met Glu Ser Asn Tyr Ser Ile His Leu Asn Gly Ser Glu Val Val Val
254
                    5
                                        10
255 Tyr Asp Ser Thr Ile Ser Arg Val Leu Trp Ile Leu Ser Met Val Val
                20
                                    25
257 Val Ser Ile Thr Phe Phe Leu Gly Val Leu Gly Asn Gly Leu Val Ile
            35
                                40
259 Trp Val Ala Gly Phe Arg Met Pro His Thr Val Thr Thr Ile Trp Tyr
         50
261 Leu Asn Leu Ala Leu Ala Asp Phe Ser Phe Thr Ala Thr Leu Pro Phe
262
                                            75
                        70
263 Leu Leu Val Glu Met Ala Met Lys Glu Lys Trp Pro Phe Gly Trp Phe
                    85
                                        90
265 Leu Cys Lys Leu Val His Ile Val Val Asp Val Asn Leu Phe Gly Ser
266
                                   105
                100
267 Val Phe Leu Ile Ala Leu Ile Ala Leu Asp Arg Cys Ile Cys Val Leu
```

VERIFICATION SUMMARY

DATE: 12/28/2004

PATENT APPLICATION: US/10/517,956

TIME: 11:41:48

Input Set : A:\PTO.YF.txt

Output Set: N:\CRF4\12282004\J517956.raw

L:8 M:270 C: Current Application Number differs, Replaced Current Application No

L:8 M:271 C: Current Filing Date differs, Replaced Current Filing Date